8/27/2003

SC12804TP

PTO/SB/08A (04-03)

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet | | of |

Complete If Known	
Application Number	10/650,002
Filing Date	~~Concurrently Herewith~~ 8/27/2003
First Named Inventor	Varughese Mathew et al.
Group Art Unit	2825
Examiner Name	C. Everhart
Attorney Docket Number	SC12804TP

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. [1]	Document Number Number -Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
CME	AA	5,695,810	12/09/1997	Dubin *et al.*	—
CME	AB	2003/0113576 A1	06/19/2003	Chebiam *et al.*	—

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. [1]	Foreign Patent Document Country Code[3] Number [4] Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T [6]

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. [1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
CME	AC	Itabashi *et al.*, "Electroless Deposited CoWB for Copper Diffusion Barrier Metal," *Proceedings of the IEEE 2002 International Interconnect Technology Conference (Cat. No. 02EX519)*, 2002, pp. 285-287.	

Examiner Signature	C. Everhart	Date Considered	10-29-04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation, if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] See Kinds of U.S. Patent Documents. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English Language Translation is attached.

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Complete if Known	
Application Number	10/650,002
Filing Date	August 27, 2003
First Named Inventor	Varughese Mathew et al.
Group Art Unit	~~1762~~ 2825
Examiner Name	~~Unassigned~~ C. Everhart
Attorney Docket Number	SC12804TP

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. [1]	Document Number Number -Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
CME	BA	6,528,409 B1	03/04/2003	Lopatin *et al.*	—
CME	BB	2003/0111729 A1	06/19/2003	Leu *et al.*	—

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. [1]	Foreign Patent Document Country Code[3] Number [4] Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T [6]

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. [1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T [2]
CME	BC	Duch *et al.*, "Development and Characterization of Co-Ni Alloys for Microsystems Applications," *Journal of the Electrochemical Society*, 2002, 149(4), pp. C201-C208.	
CME	BD	Homma *et al.*, "Microstructural Study of Electroless-Plated CoNiP Ternary Alloy Films for Perpendicular Magnetic Recording Media," *IEEE Transactions on Magnetics*, November 1991, 27(6), pp. 4909-4911.	
CME	BE	Kohn *et al.*, "Characterization of Electroless Deposited Co(W,P) Thin Films for Encapsulation of Copper Metallization," *Materials Science and Engineering*, 2001, A302, pp. 18-25.	
CME	BF	Kohn *et al.*, "Evaluation of Electroless Deposited Co(W,P) Thin Films as Diffusion Barriers for Copper Metallization," *Microelectronic Engineering*, 2001, 55, pp. 297-303.	
CME	BG	Petrov *et al.*, "Electrochemical Study of the Electroless Deposition of Co(P) and Co (W,P) Alloys," *Journal of the Electrochemical Society*, 2002, 149(4), C187-C194.	
CME	BH	Osaka *et al.*, "Fabrication of Electroless NiReP Barrier Layer on SiO_2 without Sputtered Seed Layer," *Electrochemical and Solid-State Letters*, 2002, 5(1), pp. C7-C10.	
CME	BI	O'Sullivan *et al.*, "Electrolessly Deposited Diffusion Barriers for Microelectronics," *IBM Journal of Research and Development*, September 1998, Vol . 42, No. 5, pp. 607-620.	
CME	BJ	Segawa *et al.*, "Manufacturing-ready Selectivity of CoWP Capping on Damascene Copper Interconnects," *Advanced Metallization Conference 2001, AMC 2001 Proceedings of the Conference*, pp. 567-572.	
CME	BK	Shacham-Diamand *et al.*, "Electroless Co(W,P) and Co (Mo,P) Deposition for Cu Metallization Applications," *IEEE, 2001 6th International Conference on Solid State and Integrated Circuit Technology*, Vol. 1, 2001, pp. 410-415.	
CME	BL	Shacham-Diamand *et al.*, "Electroless Deposition of Thin-Film Cobalt-Tungsten-Phosphorus Layers Using Tungsten Phosphoric Acid ($H_3[P(W_3O_{10})_4]$) for ULSI and MEMS Application," *Journal of the Electrochemical Society*, 2001, 148(3), pp. C162-C167.	
CME	BM	Shacham-Diamand *et al.*, "Material Properties of Electroless 100-200 nm Thick CoWP Films," *Electrochemical Technology Applications in Electronics Proceedings of the Third International Symposium Electrochemical Society Proceedings*, 2000, Vol. 99-34, pp. 102-110.	

Examiner Signature	C. Everhart	Date Considered	10-29-04

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